

WHAT IS CLAIMED IS:

1. A method for a model-based communication system comprising the
steps of:

5 identify at least one object within an image;
extracting feature position information of the object;
determining whether an adapted model is available based upon the extracted
feature position information; and
if available, using the adapted model in the model-based communication
10 system.

15 2. The method according to Claim 1, further comprising the step of
acquiring a customized model related to the object by modifying a generic model of the
object.

20 3. The method according to Claim 2, further comprising the step of storing
the customized model and using the customized model in the model-based communication
system.

4. The method according to Claim 3, further comprising the step of
initializing a generic model and using the generic model in the model-based communication
system until the customized model is available.

5. The method according to Claim 1, wherein the model-based communication system comprises a video teleconferencing system.

6. The method according to Claim 1, wherein the adapted model is a
5 human face model.

7. The method according to Claim 1, wherein the adapted model is a 3D representation.

10 8. A model-based communication apparatus comprising:
means for identifying at least one object within an image;
means for extracting feature position information of the object;
means for determining whether an adapted model is available based upon the
extracted feature position information; and
means for communicating information using the adapted model, if available.
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20 9. The apparatus according to Claim 8, further comprising means for acquiring a customized model related to the object by modifying a generic model of the object.

10. The apparatus according to Claim 9, further comprising a memory capable of storing the customized model, and
wherein the means for communicating uses the customized model.

11. The apparatus according to Claim 10, further comprising means for initializing/using a generic model until the customized model is available.

5 12. The apparatus according to Claim 8, wherein the model-based communication apparatus comprises a video teleconferencing system.

10 13. The image processing device according to Claim 8 wherein the adapted model is a human face model.

14. A computer-readable memory medium including code for a model-based communication apparatus, the code comprising:

15 code to identify at least one object within an image;
code to extract feature position information of the object;
code to determine whether an adapted model is available based upon the extracted feature position information; and
code to use, if available, the adapted model in the model-based communication system.

20 15. The memory medium according to Claim 14, further comprising code to acquire a customized model related to the object by modifying a generic model of the object.

16. The memory medium according to Claim 15, further comprising code to store the customized model and use the customized model in the model-based communication system.

5 17. The memory medium according to Claim 16, further comprising code to initialize a generic model and use the generic model in the model-based communication system until the customized model is available.

10 18. The memory medium according to Claim 14, wherein the model-based communication system comprises a video teleconferencing system.

19. The memory medium according to Claim 14, wherein the adapted model is a human face model.

15 20. The memory medium according to Claim 14, wherein the adapted model is a 3D representation.